41. (New) The process according to claim 38, wherein said vacuum distillation is carried out a temperature of 50-60°C and a pressure of 750-800 mm of mercury.

42. (New) The process according to claim 39, wherein said vacuum distillation is carried out a temperature of 50-60°C and a pressure of 750-800 mm of mercury.

REMARKS

The Examiner is thanked for his careful analysis of the claims reflected in the rejections and discussion on pages 3, 4 and 5 of the Office Action. In particular, the question concerning a proposed meaning of claims 22 and 23 set forth on page 5, lines 3-8 correctly set forth the intended meaning (the process is illustrated in Example No. 10 on page 11 of the specification). The intended subject matter of claims 22 and 23 has been rewritten, taking into consideration the Examiner's analysis and questions in the new main process claim 34.

Amended claims 11-16 and new claims 28-42 have been drafted to avoid the objections set forth on pages 2-5 of the Office Action.

Claims 11-16 were not rejected over prior art. It is therefore respectfully submitted that claims 11-16 and claims 28-33 which depend from claims 11-16 are in condition for allowance.

Process claims 17-27 were rejected under 35 USC 103 over Kvasenkov et al (RU 2077543) in view of Hilton et al (USP 4,320,009).

Hilton et al is only relied upon for rendering obvious the last step of applicant's claimed process, namely the concentration step. Kvasenkov et al is relied upon for disclosing or rendering obvious the remainder of applicant's claimed process. Before discussing the references in detail, two features of applicant's claimed process which are not disclosed in either of the references nor rendered obvious by the disclosure of the references are identified.

The first novel feature of applicant's claimed process is utilizing corn vegetable pulp as the raw material. As noted on page 10 of the specification, lines 8-10, the raw material is the vegetable pulp (stems and leaves) from which the corn has been removed. In the specification, the term "maize plants" and corn is used interchangeably. Both are translations of the same Russian word which corresponds to "corn" in the United States. The tissue structure and cellular texture of corn vegetable pulp differs greatly in terms of the morphological composition of

plant tissues and raw product cells from the vegetable pulps that have been traditionally used for production of anthocyanic colorants. The traditional raw materials are for example, berries and plant residues of choke berries and black grapes, hollyhock petals and shredded Scotch kale. The literature suggests that anthocyanin pigments contained in corn are incorporated into the cellulose cell envelope in the form of hemicellulose-pectin complex which makes extraction more difficult.

Applicant's claimed process utilizing corn vegetable pulp produces a colorant by sequentially extracting a plurality of raw material batches into an extraction solvent which is used for extracting the color material from the first batch of vegetable pulp and after separation of the spent first batch of vegetable pulp, is used as the extraction solvent for the second bath of vegetable pulp and this sequence is again repeated.

In addition to the above discussed above features of applicant's claimed process, applicant's invention also includes the more preferred combinations of features specified in applicant's process claims (see cancelled claims 18-20; 26-27).

Kvasenkov et al discloses a variety of vegetable raw materials, i.e., black mountain ashberries, hollyhock petals, crushed red cabbage and sunflower seed husks. Hilton, in

column 2, lines 12-28 discloses a variety of raw materials. Neither of the references disclose using corn vegetable pulp as the raw material.

Kvasenkov et al do not use sequential batch processing as in applicant's claimed process. Instead, Kvasenkov's different vegetable raw materials are contacted with separate flows of water and acid in a continuous extraction unit which is maintained in an ultrasonic vibration field. Accordingly, to the extent that the teachings of Kvasenkov et al are relevant to the issue of obviousness of applicant's claimed invention, Kvasenkov et al teaches away from applicant's claimed invention in terms of different raw materials and in terms of a fundamentally different extraction operation namely, Kvasenkov teaches continuous extraction whereas applicant utilizes sequential batch processing with the same extraction solvent utilized in successive batches.

It is respectfully submitted that applicant's process claims are patentably distinguished from the prior art for the reasons set forth hereinbefore.

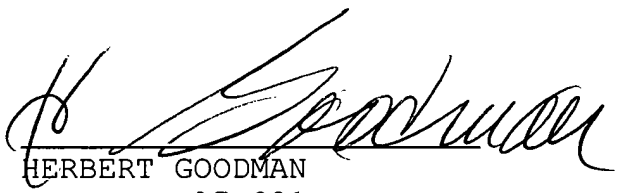
Reconsideration is requested and allowance is solicited.

Please apply the enclose check in the amount of $9.00 (small entity) for the one dependent claim in excess of a total of 20 claims.

It is requested that the Examiner return a copy of the Information Disclosure Statement (1 page) dated December 21, 2001 and the Information Disclosure Statement (2 pages) dated March 18, 2002 to the undersigned with the Examiner's initials in the left column. If this is not done, the publications identified in said Information Disclosure Statements may not be identified on the title page of the patent issuing on the present application.

A copy of original claims 11-16 with the amendments handwritten thereon is attached hereto.

Respectfully submitted,



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HG/lpv
Enc.: Handmarked copy of original claims 11-16

11. [(New)] (Amended) An anthocyanic colorant composition [made of] prepared from a vegetable [primary] raw material [§] comprising cyanidin glycosides, peonidin glycosides, organic substances, mineral salts, and pelargonidin glycosides, wherein component [§] percentage are as follows [%]:

[C]yanidin glycoside	percent
	0.1 – 8.6
[P]eonidin glycoside	
	0.08 – 6.45
[P]elargonidin glycoside	
	0.05 – 4.3
[O]ganic substance and mineral salts	
the [rest]	balance

12. [(New)] (Amended) The anthocyanic colorant according to claim 11, wherein the ratio of pelargonidin glycosides : peonidin glycosides : cyanidin glycosides [must be as] is 1 : 1.5 : 2 [respectively], and wherein [the] relative optical density is [the] highest when it is exposed to direct light with a wavelength of 505 – 515 nm.

13. [(New)] (Amended) The anthocyanic colorant according claim 11, wherein its natural red color is retained when it is exposed to an acid environment [with] having a pH from 2.0 to 7.0.

14. [(New)] (Amended) The anthocyanic colorant according claim 12 , wherein its natural red color is retained when it is exposed to an acid environment [with] having a pH from 2.0 to 7.0.

15. (New) (Amended) The anthocyanic colorant according to claim 11, wherein 80-100% of its natural color density is retained after treatment, such as freezing, boiling, exposure to direct solar radiation within pH range from 2 to 4. (when exposed to and/or an acid environment having a of)

16. (New) (Amended) The anthocyanic colorant according to claim 12, wherein 80-100% of its natural color density is retained after treatment such as freezing, boiling, exposure to direct solar radiation within pH range from 2 to 4. (when exposed to and/or an acid environment having a of)

17. (New) A process of production of anthocyanic colorant composition comprising growing of primary material containing anthocyan, grinding,
extraction of coloring matter by acid aqueous solution in ultrasonic vibration field, filtration and concentration, wherein
pre-dried vegetable maize-pulp is used as the primary material comprising anthocyan, extraction is made by mix of aqueous solutions of hydrochloric and citric acids, and concentration of coloring matter is performed in vacuum.

18. (New) The process according to claim 17, wherein the primary material is additionally prepared for extraction by infusing grinded primary material in solution of extracting agent for 6 – 8 hours at temperature of 35 – 40°C.

19. (New) The process according to claim 17, wherein extraction is performed at the temperature of 35° - 40°C.

20. (New) The process according to claim 18, wherein extraction is performed at the temperature of 35° - 40°C.

21. (New) The process according to claim 17, wherein extraction is performed by consecutive processing of three lots of vegetable primary material with subsequent removal of processed material and adding a new lot of vegetable material into prepared extract.

22. (New) The process according to claim 19, wherein extraction is performed by consecutive processing of three lots of vegetable primary material with